Installing and Starting Up the Hub

This chapter provides installation warnings, guidelines, requirements, and package contents and the following procedures:

- Unpacking the hub

- Powering up the hub and running the power-on self-test (POST)

- Installing the hub on a tabletop or shelf, in a standard or telco rack, and on a wall

- Connecting to the console port (FastHub 400M models)

- Assigning IP information to the hub and displaying the web and menu consoles (FastHub 400M models)

- Connecting to the 10/100 ports on the hub

- Accessing the management interfaces (FastHub 400M models)

- Going to related procedures

Warnings

Translated versions of the following safety warnings are provided in Appendix E, "Translated Safety Warnings."

Warning Only trained and qualified personnel should be allowed to install or replace this equipment.

Warning Do not work on the system or connect or disconnect cables during periods of lightning activity.

Warning Unplug the power cord before you work on a system that does not have an on/off switch.

Warning Do not touch the power supply when the power cord is connected. For systems with a power switch, line voltages are present within the power supply even when the power switch is off and the power cord is connected. For systems without a power switch, line voltages are present within the power supply when the power cord is connected.

Warning Read the installation instructions before you connect the system to its power source.

Warning This product relies on the building's installation for short-circuit (overcurrent) protection. Ensure that a fuse or circuit breaker no larger than 120 VAC, 15A U.S. (240 VAC, 10A international) is used on the phase conductors (all current-carrying conductors).

Warning To prevent the unit from overheating, do not operate it in an area that exceeds the maximum recommended ambient temperature of 113°F (45°C). To prevent airflow restriction, allow at least 3 inches (7.6 cm) of clearance around the ventilation openings.

Warning The device is designed to work with TN power systems.

Warning This equipment is intended to be grounded. Ensure that the host is connected to earth ground during normal use.

Warning When installing the unit, the ground connection must always be made first and disconnected last.

Warning Do not stack the chassis on any other equipment. If the chassis falls, it can cause severe bodily injury and equipment damage.

Warning Care must be given to connecting units to the supply circuit so that wiring is not overloaded.

Warning A voltage mismatch can cause equipment damage and may pose a fire hazard. If the voltage indicated on the label is different from the power outlet voltage, *do not connect the chassis to that receptacle*.

Warning Ultimate disposal of this product should be handled according to all national laws and regulations.

EMC Regulatory Statements

U.S.A.

U.S. regulatory information for this product is in the front matter and in Appendix E, "Translated Safety Warnings," of this manual.

Taiwan

警告使用者：
這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻
干擾，在這種情況下，使用者會被要求採取某些適當的對策。

15456

Installation Guidelines and Requirements

When determining where to place the hub, ensure the following conditions are met:

- Cable distances from the hub to network equipment and workstations are within the limits described in Appendix B, "Connector and Cable Specifications."

- Operating environment is within the temperature, humidity, and altitude ranges listed in Appendix A, "Technical Specifications."

   If the hub is installed in a closed or multirack assembly, the temperature might be greater than normal room temperature.

- Clearance to front and rear panels is such that:

   — Front-panel indicators can be easily read.

   — Access to the rear-panel expansion slot is sufficient for inserting the optional switched uplink module.

   — Access to the front- and rear-panel ports and connectors is sufficient for connecting cables.

   — Rear-panel power connectors are within reach of power sources.

- Airflow around the hub and through the vents is unrestricted.

- Cabling is away from sources of electrical noise, such as radios, power lines, and fluorescent lighting fixtures.

Unpacking the Hub

Follow these steps to unpack the hub:

Step 1   Open the shipping container, and carefully remove the contents.

Step 2   Return all packing materials to the shipping container, and save it.

Step 3   Ensure that all items listed in the "Package Contents" section on page 2-5 are included in the shipment.

Package Contents

Each hub is shipped with the following items:

- *FastHub 400 10/100 Series Cabling and Start Up*

- This *FastHub 400 10/100 Series Installation and Configuration Guide*

- Cisco Documentation CD-ROM

- AC power cord

- Mounting kit containing the following items:

    — Four rubber feet for installing the hub on a table or shelf

    — Two mounting brackets

    — Four Phillips flat-head screws and four Phillips truss-head screws for attaching the mounting brackets to the hub

    — Four Phillips machine screws for attaching the mounting brackets to a rack

    — One cable guide and one black Phillips machine screw for attaching the cable guide to one of the mounting brackets

- RJ-45-to-RJ-45 rollover console cable and an RJ-45-to-DB-9 female DTE adapter (labeled Terminal) (FastHub 400M models only)

- Cisco Information Packet, containing warranty, safety, support information, and Cisco Product Registration Card

---

Note If any item is damaged or missing, contact your Cisco representative or reseller for support.

Powering Up the Hub and Running POST

Before installing and cabling the hub, you might want power up the hub and verify that it is operational.

To power up the hub, connect one end of the AC power cord to the AC power connector on the hub and the other end of the cord to a power outlet. If your configuration has a Cisco RPS, see the RPS documentation.

The hub begins the power-on self-test (POST) after power up. POST consists of the ten individual tests listed in Table 4-2. The port LEDs show which test the hub is executing. At power up, all port LEDs are green. As each POST test executes, a port LED turns off. For example, if the LED for port 12x is off, the boot code test (test 1) is being executed. On the hub, the port LED for port 12x turns off first, followed by ports 11x, 10x, 9x, and so on. The LEDs for ports 1x and 2x are not used during POST. The SYSTEM LED is blinking green while POST is executing.

When POST completes, the following conditions can exist (if other devices are not connected to the hub):

- All POST tests passed—If the SYSTEM LED is green and all of the port LEDs are off, no problems were detected. The hub is fully operational.

- Nonfatal failure(s) detected—If the SYSTEM LED is amber and the hub is functional, POST detected one or more nonfatal failures. Although the hub is still operational and can forward packets, it might not operate optimally. Refer to the POST failure message displayed on the diagnostic console screen, identifying the nonfatal failure(s) detected (see the "Understanding POST Results" section on page 4-4).

- Fatal failure(s) detected—POST completes all tests, even after detecting a fatal failure. If the SYSTEM LED is amber and one or more of the port LEDs are amber, POST detected one or more fatal failures. The hub is not operational, but the amber port LED(s) indicate which test(s) failed.

You should inform your system administrator if one or more nonfatal failures are detected. Contact your Cisco representative or reseller for support if any fatal failures are detected.

The "Understanding POST Results" section on page 4-4 provides additional information, including the possible causes of nonfatal and fatal failures.

Installing the Hub on a Table or Shelf

To install the hub on a table or shelf, follow these steps:

Step 1   Be sure the hub is powered off and is not connected to a power source.

Step 2   Locate the adhesive strip with the rubber feet that shipped with the hub.

Step 3   Attach the rubber feet to the round recesses on the bottom corners of the hub.

Step 4   Place the hub on a table or shelf close to an AC power receptacle.

Step 5   Connect one end of the AC power cord to the AC power connector on the hub and the other end of the cord to a power outlet. If your configuration has a Cisco RPS, see the RPS documentation.

After power is connected, the hub starts the series of self-tests described in the "Powering Up the Hub and Running POST" section on page 2-6.

Installing the Hub in a Rack

This section describes how to install the hub in 19- and 24-inch standard and telco racks.

***

Note   Be sure the hub is powered off and is not connected to a power source before you perform the steps in the sections that follow.

***

Attaching the Brackets to the Hub

The bracket orientation and the screws you use depend on whether you plan to use a 19-inch or a 24-inch rack:

- For a 19-inch rack-mount, use the Phillips flat-head screws to attach the long side of the bracket to the hub.

- For a 24-inch rack-mount, use the Phillips truss-head screws to attach the short side of the bracket to the hub.

Place the hub on a level surface, and use two of the supplied Phillips flat-head or truss-head screws to attach a mounting bracket to each side of the hub.

Figure 2-1, Figure 2-2, and Figure 2-3 show how to attach one bracket to one side of the hub. Follow the same steps for the opposite side of the hub.

Figure 2-1   Attaching Brackets for 19- and 24-inch Racks (Front Panel Forward)
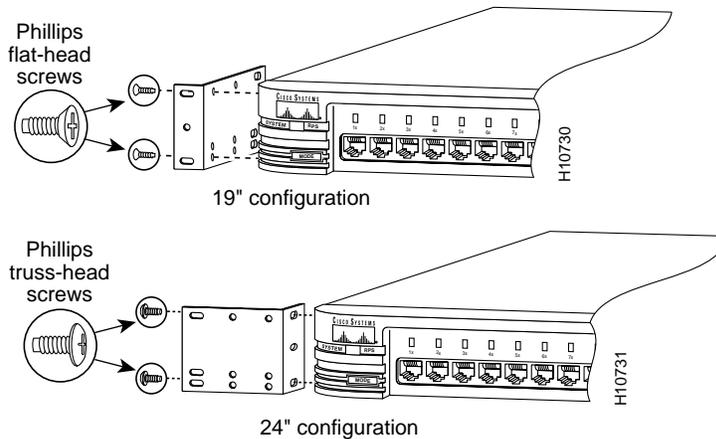
Figure 2-2   Attaching Brackets for 19- and 24-inch Racks (Rear Panel Forward)
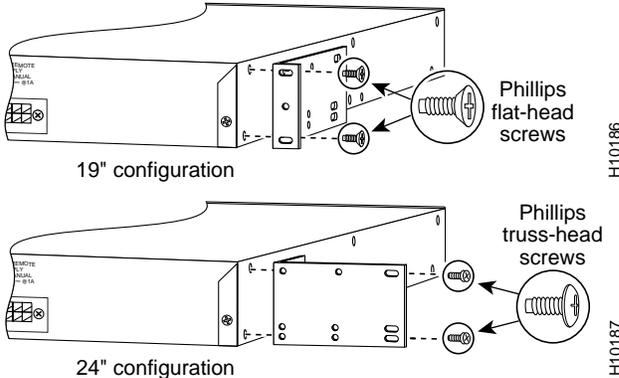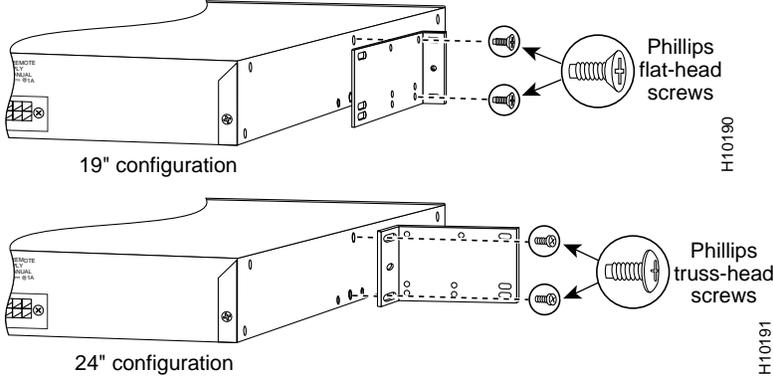

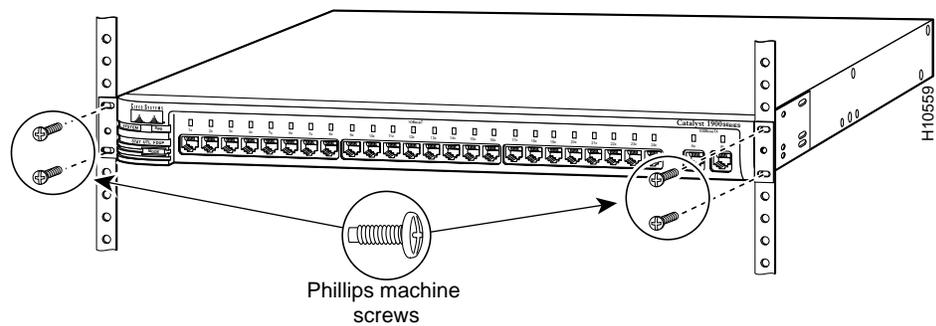**Figure 2-3   Attaching Brackets for 19- and 24-inch Racks (Mid-Mount)**

Attaching the Hub to the Rack

After the brackets are attached, use two of the Phillips machine screws to securely attach each bracket to the rack, as shown in Figure 2-4.

Figure 2-4   Attaching the Hub to a Rack (Front Panel Forward)

Phillips machine
screws

Attaching the Cable Guide to the Bracket

Attaching the cable guide and securing the cables in the cable guide prevent the cables from obscuring the hub and other devices in the rack. If the hub is in a 19- or 24-inch rack, you can attach the cable guide to the left or right rack-mount bracket with the black screw, as shown in Figure 2-5.

Figure 2-5   Attaching a Cable Guide

Black Philips machine screw
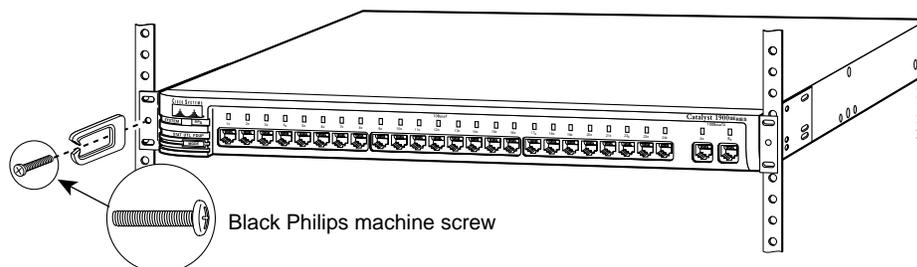
After the hub is in the rack, connect one end of the AC power cord to the AC power connector on the hub and the other end of the cord to a power outlet. If your configuration has a Cisco RPS, see the RPS documentation. After power is connected, the hub starts the series of self-tests described in the "Powering Up the Hub and Running POST" section on page 2-6.

Installing the Hub on a Wall

This section describes how to attach the hub in parallel and vertically to a wall.

Note Be sure the hub is powered off and is not connected to a power source before you perform the steps in the sections that follow.

## Attaching the Brackets to the Hub

The bracket orientation depends on whether you plan to parallel or vertical wall-mount the hub:

- For a parallel wall-mount, use the Phillips truss-head screws to attach the short side of the bracket to the hub.

- For a vertical wall-mount, use the Phillips flat-head screws to attach the long side of the bracket to the hub.

Place the hub on a level surface, and use two of the Phillips truss-head or flat-head screws to attach a mounting bracket to each side of the hub.

Figure 2-6 shows how to attach one bracket to one side of the hub. Follow the same steps for the opposite side of the hub.

Figure 2-6   Attaching Brackets for Parallel and Vertical Wall-Mounting
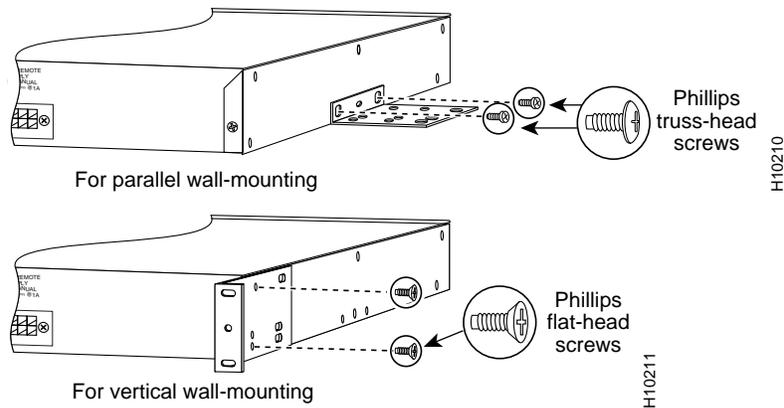
Attaching the Hub to a Wall

For the best support of the hub and cables, make sure the hub is securely attached to a wall stud or to a firmly attached plywood mounting backboard, as shown in Figure 2-7. You must supply your own screws to attach the hub to the wall.

Note   If you plan to use the optional switched uplink module, install it in the hub before vertically attaching the hub to a wall.

Figure 2-7   Attaching the Hub to the Wall
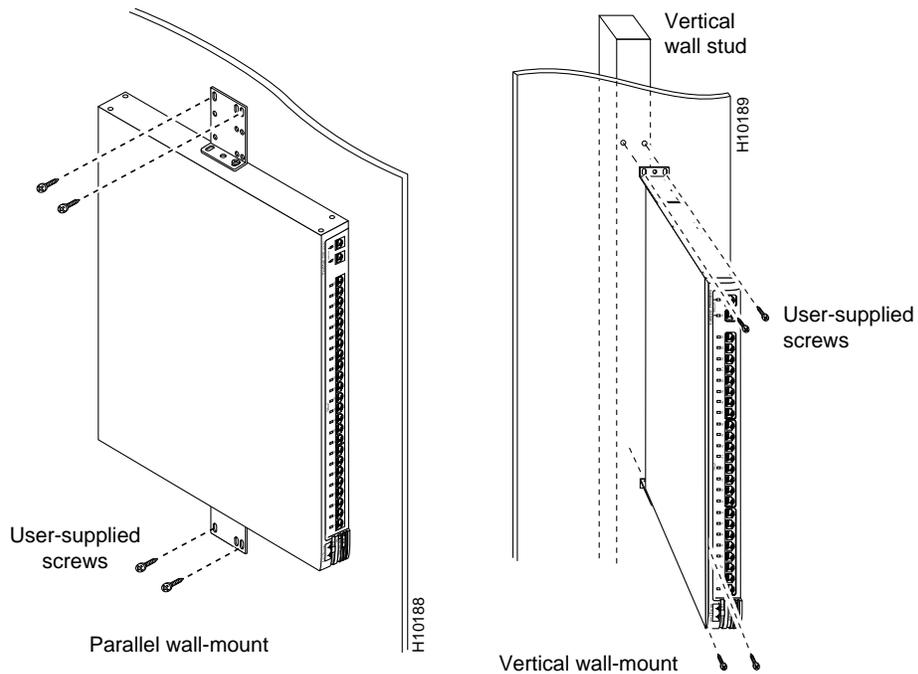
After the hub is attached to the wall, connect one end of the AC power cord to the AC power connector on the hub and the other end of the cord to a power outlet. If your configuration has a Cisco RPS, see the RPS documentation. After power is connected, the hub starts the series of self-tests described in the "Powering Up the Hub and Running POST" section on page 2-6.

Connecting to the Console Port (FastHub 400M Models)

To connect the RJ-45 console port of a FastHub 400M model to a management station or modem, you must use the supplied RJ-45-to-RJ-45 rollover console cable and the appropriate adapter and follow these steps.

Note   The rollover console cable and a RJ-45-to-DB-9 female DTE adapter are supplied with the hub. If your management station requires a different adapter—such as a RJ-45-to-DB-25 female DTE or RJ-45-to-DB-25 male DCE adapter—you must provide it.

Step 1   Configure the hub console port settings to match the management station or modem. These are the default settings of the console port:

- 9600 baud

- 8 data bits

- 1 stop bit

- No parity

- No flow control

You can change the console port characteristics of the hub from the web-based System Configuration Page (see the "Changing the System Configuration" section on page 3-40) or by using the **terminal** command from the CLI.

Note   Make sure the settings of the console port and the management station or the modem match.


Step 2 Connect one end of the supplied rollover console cable to the console port, as shown in Figure 2-8.

⚠ **Caution** Do not connect an actual telephone line, an ISDN line, or an Ethernet cable to this console port. Damage to the hub can result. Make sure you use the supplied RJ-45-to-RJ-45 rollover cable and adapters to connect the console port to the management station or modem.

Figure 2-8   Connecting to the Console Port

Supplied RJ-45-to-RJ-45
rollover console cable
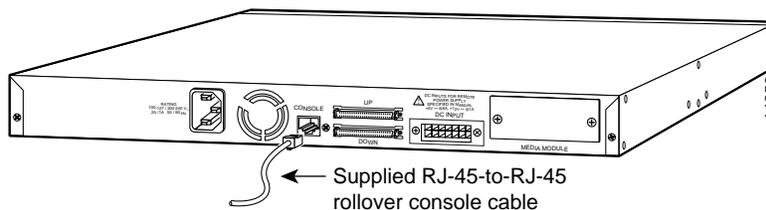
Step 3 Attach the appropriate adapter, such as the supplied RJ-45-to-DB-9 female DTE adapter (labeled Terminal), to a management station or modem.

> **Note** If you are connecting the hub to a Sun workstation (or to a management station with a female DB-25 serial connector), use a male-to-male gender changer to attach the supplied RJ-45-to-RJ-45 rollover cable and a RJ-45-to-DB-25 female DTE adapter to the management station.

Step 4 Connect the other end of the supplied rollover cable to the adapter.

Connector and cabling specifications for the console port are in the Appendix B, "Connector and Cable Specifications."

Now that the hub is connected to a management station, you can assign IP information to the hub (see the "Assigning IP Information to the Hub (FastHub 400M Models)" section on page 2-16).

Assigning IP Information to the Hub (FastHub 400M Models)

After you install the hub and connect it to a management station, you can assign IP information to the hub. IP information identifies the hub to the network and is required to manage and monitor the hub through the FastHub 400 series Hub Manager, the CLI, or SNMP.

You can assign IP information to the hub by following the hub start-up prompts displayed from a terminal emulation program on your management station.

You should contact your system administrator for the following information:

- Hub IP address
- Subnet mask (netmask)
- Default gateway (router)

To assign IP information to the hub, follow these steps:

Step 1 From your management station, start the terminal emulation program.

After POST completes, the Continue with configuration dialog? prompt appears on the management station, and you can then follow the prompts to assign IP information to the hub.

Step 2 From the terminal or PC, enter **Y**:

```
Continue with configuration dialog? [yes/no]: Y
```

Step 3 Enter the IP address (for example: 10.1.105.20):

```
Enter IP address: 10.1.105.20
```

Step 4 Enter the subnet mask (IP netmask) (for example: 255.255.255.0):

```
Enter IP netmask: 255.255.255.0
```

Step 5   Enter the IP address of the default gateway (for example: 10.1.105.254):

```
Enter IP default gateway: 10.1.105.254
```

Note   If the management station from which the FastHub 400 series Hub Manager is used is not on the same IP subnet as the hub, you must also assign a default gateway (the router for the local subnet).

The following information is displayed:

```
The following configuration command script was created:
ip address 10.1.105.20 255.255.255.0
ip default-gateway 10.1.105.254
!
end
```

Step 6   Enter **Y**:

```
Use this configuration? [yes/no]: Y
```

The following information is displayed:

```
Building configuration...
Use the enabled mode 'configuration' command to modify this
configuration.

Press RETURN to get started.
```

Pressing **Return** opens a CLI session.

Step 7   Exit from the terminal session.

You can now use the hub with its default values or configure and monitor it by using the FastHub 400 series Hub Manager, the CLI, or SNMP and the MIB files.

Connecting to the 10/100 Network Ports and Uplink Port

You can connect the 10/100 network ports and the uplink port to the ports on any 10BaseT or 100BaseTX network device, such as workstations, servers, switches, routers, and other hubs.

The 10/100 network ports (ports 1x through 12x or 1x through 24x) are internally crossed. These ports require a *crossover* cable to connect to another hub or switch (unless you are connecting to the uplink port on another FastHub or device). When connecting to a workstation, server, or router, these ports require a *straight-through* cable.

The 10/100 uplink port (port 12 or 24) is not internally crossed and requires a straight-through cable to connect to a server, hub, switch, or router.

By default, each 10/100 port on the hub configures itself to operate at the speed of the port to which it is connected. If the port on the attached device does not support autonegotiation, you can explicitly set the 10/100 port to match the speed of the attached port by using one of the management interfaces available to the FastHub 400M models.

When connecting other network devices to the 10/100 ports, keep the following guidelines in mind:

- Use the following types of twisted-pair cables when connecting the 10/100 network ports or the 10/100 uplink port to a network device:

    — 10BaseT network devices—Category 3, 4, or 5

    — 100BaseTX network devices—Category 5

    Note   Although you can use Category 3 and 4 cables for 10BaseT networks, these cable types will not work for 100BaseTX network devices. When designing a network that includes autosensing repeaters like the FastHub 400 models, keep in mind that 100BaseTX traffic cannot be sent over these cable types.

- Use a straight-through cable to connect two ports when one of the ports is designated with an **X**. Use a crossover cable to connect two ports when both ports are designated with an **X**.

- Connecting to devices that do not autonegotiate or that have their speed setting manually set can reduce performance or result in no link. To maximize performance, choose one of these methods for configuring the 10/100 ports:

  — Let both ports autonegotiate port speed.

  — Manually set the same speed setting for the ports on both ends of the connection.

- When a 10/100 device connected to the hub changes speeds (from 10 to 100 Mbps or from 100 to 10 Mbps), the device must reboot. The device then drops the link to the hub and recreates the link after rebooting. (If the device does not reboot after changing speeds, the hub does not detect the change in speed.)

⚠ **Caution**   If you connect to ports 12x and 12 (or ports 24x and 24), you will disable both ports.

Follow these steps to connect to 10BaseT or 100BaseTX devices:

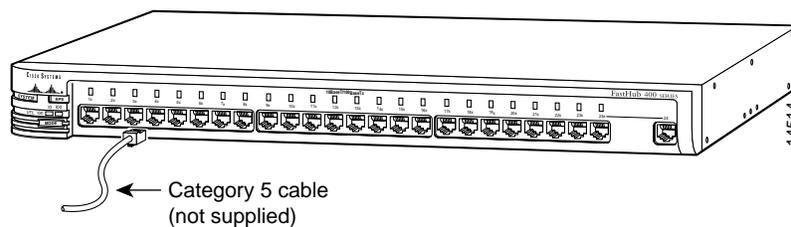**Step 1**   Connect one end of the Ethernet cable to a 10/100 port on the hub, as shown in Figure 2-9.

Note   When connecting the hub to workstations, servers, and routers, ensure that the cable is a straight-through, twisted-pair cable. When connecting the hub to switches or repeaters, use a crossover cable.

Figure 2-9   Connecting to a 10/100 Port

Category 5 cable
(not supplied)

Step 2 Connect the other end of the cable to the 10BaseT or 100BaseTX port of the network device.

Step 3 Check to see that the port LED for the port that you connected in Step 1 comes on.

If the port LED does not come on, check for the following problems:

- The network device is not turned on.

- The Ethernet adapter in the network device is not operating correctly.

- You are using the wrong type of Ethernet cable.

- The Ethernet cable is damaged or not connected correctly.

Step 4 If required, reconfigure and reboot the connected network device.

Step 5 Repeat Steps 1 through 3 for each device that you are connecting to the hub.

If you need more information about Ethernet cabling and 10/100 port pinouts, refer to Appendix B, "Connector and Cable Specifications."

Accessing the Management Interfaces (FastHub 400M Models)

After you assign IP information to the hub, you can access the hub management interfaces. This section provides information for accessing the FastHub 400 series Hub Manager, the CLI, and SNMP and MIB files.

Accessing the FastHub 400 Series Hub Manager

To access the hub manager, all you need is the IP information of the hub (and the password if one has been assigned). IP information for the hub is usually assigned when the hub is first started up after installation. (See the "Assigning IP Information to the Hub (FastHub 400M Models)" section on page 2-16.)

Note You can access the hub manager from a PC connected to one of the 10/100 ports. Therefore, make sure that you do not disable or otherwise misconfigure the port through which *you* are communicating with the hub. You might want to write down the port number to which you are connected. Make changes to the hub IP information with care.

To access the hub manager, follow these steps:

Step 1   Start Netscape Communicator (4.03 or higher) or Microsoft Internet Explorer (4.01 or higher).

Step 2   Ensure that the following browser features are enabled:

- Java

- JavaScript

- Set the caching of pages to **Every time** in Communicator or **Every visit to the page** in Internet Explorer.

Step 3   Enter the IP address of the hub in the Location field if you are using Communicator (the Address field if you are using Internet Explorer) to display the hub manager Home Page (Figure 2-10).

Figure 2-10   Home Page

Click Apply after making changes on a page.

Click Revert to discard unapplied changes on a page.

Click Help for procedures and detailed field descriptions.

Click the Mode button to change the mode that the LEDs display for the fixed 10/100 ports.

Click these topics to move from page to page. On Netscape Communicator only, when the cursor is above a topic, a pop-up briefly describes the options on that particular page.

Click a port to display its settings, status, and statistics.

Click to display the settings, status, and statistics of an installed 10BaseT/100BaseTX or 100BaseFX switched uplink module.

Shows when another hub is connected to a stacking connector on the hub rear panel.

Note   You can bookmark the hub IP address to retrieve the hub manager for later use. If you are using Communicator, choose the **Communicator** menu option, and select **Bookmarks > Add Bookmark**. If you are using Internet Explorer, choose the **Favorites** menu option, and select **Add to Favorites**. Do not use the right mouse button to bookmark the hub IP address; doing so only saves the specific frame (image) of the hub manager page.

Accessing the CLI

You can access the CLI

- From a console terminal connected to the hub console port. For more information, see the "Connecting to the Console Port (FastHub 400M Models)" section on page 2-14.

- Through a Telnet session from a remote host by entering the **telnet** command and the name or IP address of the hub.

- Through a Telnet session by clicking **Telnet** on the hub manager Home Page.

When you access the CLI and a password has been defined, the following prompt is displayed:

```
Cisco Systems Console
Enter Password:
```

Enter the password. The hostname> prompt is displayed after you enter the correct password.

For complete information about the CLI, refer to the *FastHub 400 10/100 Series Command Reference*.

Accessing the MIB Files through SNMP

You can access the hub MIB files through SNMP. The following MIB files contain variables that can be set or read to provide information about the hub and the traps generated by the hub.

- RFC1213-MIB.my contains the MIB II (RFC 1213).

- ETHERLIKE-MIB.my contains the Ethernet Transmission MIB (RFC 1643).

- CISCO-CDP-MIB.my contains the CDP MIB.

- SNMP-REPEATER-MIB.my contains the standard MIB for managing the hub.

- RMON-MIB.my contains the RFC 1757 RMON (Groups 1, 2, 3, and 9). More information about RMON and the RMON groups is provided in the "Remote Monitoring" section on page 2-25.

- CISCO-SIBU-SIMPLE-UPGRADE-MIB.my contains the MIB module for upgrading the firmware on Cisco low-end devices.

- CISCO-SIBU-MANAGERS-MIB.my contains the MIB module for management interfaces on the FastHub 400M models.

- CISCO-SIBU-STACKABLE-DUAL-SPEED-HUB-MIB.my contains the MIB module that extends the REPEATER-MIB to manage Cisco low-end stackable repeater products.

If you are going to manage the hub by using SNMP and the MIB files, the Read and Write community strings need to be set. To do this, you can either

- Use the default community strings

  — Read community string. The default is public.

  — Write community string. The default is private.

- Assign community strings by using the SNMP Management Page or by using the **snmp-server community** command on the CLI.

Note   Wait approximately 30 seconds for the changes to be saved to permanent storage before turning off the hub, or the changes might not be saved.

You can obtain a copy of the MIB files in the following ways:

- Using File Transfer Protocol (FTP) to access the ftp.cisco.com server.

- Using Cisco Connection Online (CCO) to access the cisco.com server.

Using FTP to Access the MIB Files

To obtain a MIB file, follow these steps:

Step 1   Use FTP to access the server ftp.cisco.com.

Step 2   Log in with the username anonymous.

Step 3   Enter your e-mail name when prompted for the password.

Step 4   At the ftp> prompt, change directories to /pub/MIBs.

Step 5   Use the **get README** command to display the readme file listing available files.

Step 6   Use the **get** *MIB_filename* command to get a copy of the MIB file.

Using CCO to Access the MIB Files

To access the MIB files from CCO, click **Software & Support** to display the Software Center site.

CCO serves a wide variety of users through two interfaces that are updated and enhanced simultaneously: a character-based version and a multimedia version that resides on the World Wide Web (WWW). The character-based CCO supports Zmodem, Kermit, Xmodem, FTP, and Internet e-mail, and it is excellent for quick access to information over lower bandwidths. The WWW version of CCO provides richly formatted documents with photographs, figures, graphics, and video, as well as hyperlinks to related information.

You can access CCO in the following ways:

- WWW: http://www.cisco.com
- WWW: http://www-europe.cisco.com
- WWW: http://www-china.cisco.com
- Telnet: cco.cisco.com
- Modem: From North America, 408 526-8070; from Europe, 33 1 64 46 40 82. Use the following terminal settings: VT100 emulation; data bits: 8; parity: none; stop bits: 1; and connection rates up to 28.8 kbps.

For a copy of CCO's Frequently Asked Questions (FAQ), contact cco-help@cisco.com. For additional information, contact cco-team@cisco.com.

Remote Monitoring

The Remote Monitoring (RMON) MIB is used by network managers to monitor remote devices. An RMON implementation consists of a software probe that continually collects statistics about a LAN and a management station that communicates with the probe. The probe transfers information to the management station on request or when a predefined threshold is crossed.

The hub supports four RMON groups (Table 2-1) as defined in RFC 1757. Default statistic rows are created for each port when you start the hub. You can obtain information about the four supported groups by using any SNMP management application.

Table 2-1   **RMON Groups and Their Functions**

Group Name	Description
Statistics	This group collects traffic and error statistics for a specific interface. For example, you could use this group to determine how many error packets have been seen on a given port.
	Statistics from this group can be used by the history group to record historical views of network performance. A statistics row is established by default for each hub port.
History	This group periodically samples the counters generated by the statistics group. This information can be used to establish baseline information regarding network activity. You can define the intervals you want to record information for, and you can define how many of the samples are to be stored.
	Note RMON statistics gathering has a maximum limit of 50 history buckets per historyControlTable entry.
Alarm	This group generates alarms according to user-defined thresholds. You could, for example, configure RMON to generate an alarm when alignment errors on a port exceeded a predefined limit. Rising and falling thresholds can be defined, and the events group can generate traps and automated responses based on the alarms.
Event	This group sends traps to the management station based on information (alarms) received from the alarm group.

Where to Go Next

Now that you have installed the hub and, if you have a FastHub 400M models, assigned IP information to the hub, you can continue to

- Chapter 3, "Configuring and Monitoring from the Hub Manager" for configuration and monitoring information. (FastHub 400M models only).

- Appendix C, "FastHub Stacks" for interconnecting the hub to other FastHub 400M models to form hub stacks.

- Appendix D, "Switched Uplink Modules" for descriptions of the optional switched uplink modules and procedures for installing and connecting to them.